the table would necessitate the establishment of dichotomies upon obscure marks of difference, those members will not be included in the table, but descriptions of them, or lists of them with references to descriptions will be added in an appendix, so that the completeness of the synopsis may not be impaired, while at the same time the table will be rendered more definite in its divisions.

Each synopsis will include a list of the groups of which it treats, with references to the most important accessible works in which monographs or descriptions are given. In case any groups have already been tabulated elsewhere, so that a new tabulation seems not to be needed, merely a reference to the tables will be given. Much space will be saved by the avoidance of useless repetition, at the same time that these synopses will serve as a complete guide to the larger works for which no substitute can be made. *B. Pickman Mann.*

BIBLIOGRAPHICAL RECORD.

Authors and Societies are requested to forward their works to the Editor at the earliest date possible. We ask our readers to inform us of the publication especially of those works which are not generally consulted by entomologists. *B. Pickman Mann.*

(*Continued from page* 160.)

Nos. 447 to 534 are from the **Can. Entom.**, vol. vii (cont.).

* 447. { G. M. Dodge. Catocala Nebraskæ, Dodge. p. 2.
{ A. R. Grote. Note on Catocala Nebraskæ. p. 2–3.

Description; affinities. Note on *Nemophila* spp. from California.

* 448. Geo. Norman. Captures of Noctuidæ at St. Catharines, Ont. p. 3–6; p. 21–24.

List of 175 species collected, with dates, notes of abundance, and method of capture.

* 449. V. T. Chambers. Tineina from Texas. [Continued from vol. vi; see Rec. No. 441.] pp. 7–12, 30–35, 51–56, 73–75, 92–95, 105–108.

Remarks on three additional not new species; describes[1] *Hyponomeuta 5-punct, H. apicipunct, Gracilaria Belfrag* [*G. belfrageella*, p. 92], *G.* (*Coriscum*) *quinquestrig*, Naera, *N. fuscocristat, Butalis brevistrig* [“*buristriga*”], *B. dorsipallid, B. immaculat, B. planipen* [“*plausipenella*”], *B. albapen*, Glaucе, *G. pectenalae, Laverna oenotherae, L. unicristat, L. rufocristat, L.*

[1] Every specific name ends in *ella*, omitted in the Record to save space.

ignobilis [" *ignotilisella* "], *L. albocapit*, *L. parvicristat*, *L. miscecolor* [" *miscecalonella* "], *L. fuscocristat* [= *Naera fuscocristatella*], *L. obscurus*, *Buculatrix nive*, *B. magn*, *B. immaculat*, Eriphia, *E. concolor*, *Elachista?* *concolor*, *E. parvipulv*, *E. inornat*, *Drygope luteopulv*, Aetole, *A. b*, *Nepticula Belfragr* [err. typ?], *Coleophora bistrig*, *C. argentialb*, *C. albacost*, *C. triline*, *Oecophora basque*, *Theisoa multifasci*, Ithome, *I. unimacul*, Phaetusa, *Ph. plut*, Phigalia, *Ph. alb*, *Ph. ochremacul* = 7 n. g., 39 n. spp.; substitutes the generic name Leuce for Naera preoccupied; notes that the name Aspidisca is preoccupied; heterogeneity of the families Glyphipterygidae and Lyonetidae; notes on the affinities of many genera and species.

* 450. W. Saunders. The Mexican Honey Ant. (*Myrmecocystus Mexicanus.*) p. 12–14, fig. 1.

Habits and honey-production; use as food for man.

* 451. W. Saunders. On some of our Common Insects. The Green Grape-Vine Worm — *Amphipyra pyramidoides*. p. 14–15, fig. 2, 3.

Food-plants; seasons; description of larva (fig.), pupa and imago (fig.)

* 452. H. K. Morrison. ——— p. 15–17.

Reply to Mr. Grote's criticisms [see Rec., No. 217] upon the article cited in this Rec., No. 180. Discusses *Hadena rasilis*, *H. vulgivaga*, *Taeniocampa oviduca*, *Glaea sericea*, *Agrotis exsertistigma*, Exyra, Tricholita, *Mamestra illabefacta*. [See Rec., No. 464.]

* 453. W. Couper. Glaucopsyche Couperi Grote p. 17–18. Papilio brevicauda, Saunders. pp. 18, 80.

Rectification of names applied to *G. Lygdamus*, *G. Couperi* and *Lycaena Pembina* (by W. H. Edwards and S. H. Scudder). Capture of *P. brevicauda* on the south shore of the Gulf of St. Lawrence.

* 454. A. R. Grote. Colias philodice. p. 18–19.

Contact with potassic cyanide in the collecting bottle causes the wings of *C. philodice* to become crimson.

* 455. W. V. Andrews. ——— p. 19.

Addition of 8 species to Grote's list [see Rec., No. 407] of Noctuidae common to North America and Europe; occurrence of *Danais archippus* in Queensland; suspicious resemblance between some Labrador and European species of Colias.

* 456. A. R. Grote. Preliminary List of the Noctuidæ of California. [Continued from vol. vi; see Rec. No. 422.] Part III. p. 25–28. Part IV. p. 44–49. Part V. p. 67–72. Part VI. p. 101–104.

List of 95 additional species, with notes and some redescriptions; describes *Agrotis lagena*, *Mamestra illaudabilis*, *Hadena indirecta*, *Actinotia Stewarti*, *Prodenia praefica*, *Annaphila decia*, *Trichotarache assimilis*, *Lito-*

sea adversa, Agrotis silens, A. pastoralis, A. gagates, Behrensia, *B. conchiformis, Graphiphora Behrensiana* = 1 n. g., 13 n. spp.: proposes the new generic name Litosea.

* 457. W. Saunders. On some of our Common Insects. — The Cylindrical Orthosoma — *Orthosoma cylindricum*, Fabr. p. 29, fig. 4, 5.

Habits, descriptions and figures of imago and larva.

* 458. T. Glover. Recent Notes on the Phylloxera from Foreign Sources. p. 35–39.

Reprint from "Entomological Record," in Monthly Report of the U. S. Department of Agriculture. Experimental means against the Phylloxera, and their respective results; reports of discussions of French vineyardists upon the subject.

* 459. T. L. Mead. Interesting Captures. p. 39–40.

Grapta satyrus, Thecla strigosa and more common butterflies taken in Victoria Co., Ontario; also *Arctia (Euprepia) americana;* habits of the first and last.

* 460. W. Couper. ——— p. 40.

Brephos infans and *Samia Columbia* found in the Province of Quebec; ravages of *Biston ursaria* on Lombardy Poplar.

* 461. W. Saunders. On some of our Common Insects. — The Beautiful Wood Nymph — *Eudryas grata*. p. 41–44, fig. 6–8.

Description and habits of all stages; figures of imago, larva and eggs; description, figure and habits of *Exorista leucaniae*, parasitic upon the larva.

* 462. F. B. Caulfield. Notes on the Larva of Grapta Faunus Edwards. p. 49–50.

Description, habits and food-plants of the larva.

* 463. Henry L. Moody. Young of Polyxenus. p. 56.

Place and manner of deposition of eggs; description of eggs and of young ten hours old.

* 464. A. R. Grote. Crocigrapha. p. 57.———p. 57–60

Proposal of the new generic name Crocigrapha for *Perigrapha Normani*. Rejoinder to Mr. Morrison's article cited in Rec., No. 452, discussing the same species [see also Rec., No. 442], and, in addition, *Hydroecia semiaperta, Bolina nigrescens, B. fasciolaris;* defence of the validity of generic names proposed with only an implied description. [See Rec., No. 470.]

* 465. Allen Y. Moore.——— p. 60.

Results attained in raising *Papilio asterias* from a wounded pupa.

* 466. G. Norman. Sugaring for Noctuæ. p. 61–62.

Directions as to materials, place, time and manner.

* 467. R. Bunker. Hints on Collecting Cocoons of the Luna Moth. — *Tropæa luna.* p. 63.

Differences in cocoons, habits and food-plants of Luna and Polyphemus.

* 468. W. Saunders. On some of our Common Insects. The Hellgrammite Fly — *Corydalis cornutus* Linn. p. 64–67, fig. 9, 10.

Habits of larva and imago; description of imagos and eggs; figures of larva, pupa and imagos.

* 469. A. R. Grote. On Calocampa. p. 76–77. On Adita. p. 77. ——— p. 77–78.

[Refers to Annals Lyc. Nat. Hist. N. Y., vol. xi, p. 91–104.] Relationship between the North American and European species of Calocampa; validity of the genus Lithomia. The species of the genus Adita have spinose tibiae. Reasons for retaining Hübner's name Atethmia instead of Guenée's name Cirroedia for a genus of Noctuidae [see Rec., No. 445].

* 470. H. K. Morrison. ——— p. 78–80.

Remarks upon some of Mr. Grote's statements in the article cited in Rec., No. 464. [Mr. Morrison says that when he discovered a genus which approached Tricopis, but was distinct from it, he very properly gave it the name of Eutricopis (cf. Amer. Journ. Sci. and Arts, ser. 2, vol. xlvi, p. 68, Art. 28 (8) and Art. 29 (1); the genus Eutricopis not possessing the three-clawed tibiæ which give the name to the genus Tricopis.] [See Rec., No. 483.]

* 471. W. V. Andrews. ——— p. 80.

Inquiry concerning the habits and seasons of *Rhagium lineatum.* [See Rec., Nos. 479–481.]

* 472. C. W. Pearson. Rare Captures. p. 80.

Occurrence of *Colias eurytheme*, *Smerinthus modesta* and a variety (?) of *Catocala concumbens* at ? Montreal.

* 473. W. H. Edwards. Some Notes on Lycæna pseudargiolus. p. 81–83.

Proof that *L. violacea* is a spring form of *L. pseudargiolus*; habits and seasons of the species. Suggestion that *L. neglecta* and *L. lucia* may be identical, and perhaps also forms of *L. pseudargiolus*; doubts.

* 474. A. R. Grote. On three New Species of Noctuidæ. p. 83–85.

Describes *Agrotis rufipennis*, *Orthosia helva*, *Glaea venustula* = 3 n. spp.; note on the genus Glaea.

* 475. W. Saunders. On some of our Common Insects. — The Beautiful Deiopeia —*Deiopeia bella.* p. 85–86, fig. 11.

Describes the imago (fig.).

* 476. F. B. Caulfield. List of Diurnal Lepidoptera of the Island of Montreal, P. Q. p. 86–90.

Enumerates 47 species, with notes on abundance and seasons.

* 477. H. K. Morrison. Description of a New North American Species of Mamestra, and of a Genus allied to Homohadena. p. 90–91.

Describes *Mamestra Dodgei* n. sp. and Copihadena n. g., the latter to include "*Homohadena*" *atricollaris*. *H. induta* = *H. retroversa*. [See Rec., No. 488.]

* 478. F. G. Sanborn. Obituary [notice of Philip S. Sprague]. p. 95–96.

[Reprint from the American Journal of Numismatics (etc.), vol. ix, p. 95.] [The name is misprinted, "Philip L. Sprague."]

* 479. Henry L. Moody. Rhagium lineatum. p. 96.

* 480. Andrew S. Fuller. Rhagium lineatum. p. 97.

Replies to Mr. Andrews' inquiry, cited in Rec., No. 471.

* 481. Frederick Blanchard [mispr. "Planchard"]. Rhagium lineatum. p. 96–97.

Reply to Mr. Andrews' inquiry, cited in Rec., No. 471; notes on hibernation of other Cerambycidae, viz.: *Microclytus gazellula*, *Graphisurus pusillus?*, *Cyrtophorus niger?*

* 482. Edward L. Graef. ——— p. 98–99.

List of eight species of butterflies and five species of moths received from the neighborhood of Salt Lake, Utah; notes on *Platysamia Gloverii* and *Anthocharis ausonides*.

* 483. A. R. Grote. ——— p. 99–100. ——— p. 100.

Reply to the article cited in Rec., No. 470, and conclusion of the series cited in Rec., Nos. 180, 217, 452, 464, 470. *Agrotis scandens* and *A. muraenula* are distinct species.

* 484. G. J. Bowles. Description of a New Species of Dryocampa. p. 108–109.

Re-describes "*Dryocampa rubicunda* var. *alba*" as *D. pallida* n. sp.

* 485. C. J. S. Bethune. Insects of the Northern Parts of British America. Compiled from Kirby's Fauna Boreali-Americana: Insecta. [Cont. from vol. v.] pp. (156–158,) 109–113, 129–132, 156–159.

Reprint of p. 240–257 of Kirby's work, comprising descriptions of 18 spp. Coleoptera, 3 spp. Orthoptera, 2 spp. Neuroptera, 2 spp. Trichoptera, 5 spp. Hymenoptera.

* 486. A. R. Grote. On Genera in the Moths. p. 113–115.

Thoughts on the value of classificatory divisions and the necessity of defining our comprehension of them.

Salycylic Acid as a Preservative. Having lately experimented with salycylic acid as a preservative, I found that when about ten grains of it are added to a quarter of a pound of brown glue, to be dissolved in water for the purpose of gluing sheets of cork into insect-boxes, it is an excellent material to preserve, clarify and deodorize the glue. I also found the following useful for preserving delicately tissued invertebrates and larval insects : Dissolve twenty grains of salycylic acid in two fluid ounces of alcohol and add three ounces of water.— *Carl F. Gissler*, Brooklyn, N. Y., Feb. 13, 1876.

Proceedings of the Club.

§ 10. Prothoracic Tubercles in Butterfly Caterpillars. Mr. S. H. Scudder suggested that the extensible tubercle of the under surface of the first thoracic segment of most butterfly caterpillars would probably prove homologous with the osmateria (or more highly developed extensible tubercles of the upper surface of the same segment) of the caterpillars of the swallow-tail butterflies. Osmateria are found only and always in the subfamily to which the swallow-tails belong; inferior tubercles in all other butterfly caterpillars, but never in the swallow-tails. Prepared caterpillars of all the principal groups were exhibited in illustration. [See these Proceedings, § 3, p. 64.] *November 12, 1875.*

§ 11. Guadalupe Orthoptera and Butterflies. Mr. S. H. Scudder exhibited the Orthoptera and Butterflies collected in February and March, 1874, by Dr. Edward Palmer, on the island of Guadalupe, off the coast of Lower California. There were but four different kinds of Orthoptera; one an undescribed species of Gryllus with very short wings, most nearly allied to *G. peruvianus* Sauss., and probably indigenous, the remainder Acrydii; one an undetermined species of the genus Acrydium of the American division Schistocerca; the others undescribed species of Trimerotropis, one of which is also found in California and a very closely allied species in Texas; while the last, though probably not indigenous, has not yet been recognized among the Orthoptera of the main land. The only butterfly found upon the island, according to Dr. Palmer, is *Vanessa Carye*, a species common to the west coast of America from California to Peru. *Nov. 12, 1875.*

No. 24 was issued April 14, 1876.